

REQUEST FOR RECONSIDERATION

Claims 1 to 21 as presented with applicants' paper dated April 09, 2007, are currently pending in this case. Claims 9 and 17 stand allowed, Claims 6 to 8, 15 and 16 stand objected to, and Claims 1 to 5, 10 to 14 and 18 to 21 stand rejected.

More specifically, the Examiner reiterated the rejection of Claims 1 to 5, 10 to 14 and 18 to 21 under 35 U.S.C. §103(a) as being unpatentable in light of the teaching of *Seitz et al.* (WO 96/17825). The Examiner argued *inter alia*:¹⁾ “*Seitz suggests a compound of formula I where Ar₂ is a phenyl that is substituted with 2 alkoxy groups, A₁, A₂ and A₃ = H, m = 2, E is =CHR₁ where the position 1 on the moiety bares [sic] alkyl (Me, Et, Pr), G = bond, and Z = halogen, alkyl (Me, Et, Pr) or alkoxy (O-Me, O-Et, O-Pr). The substitution on the heteroaryl can be halogen, alkyl, etc. This compound taught by Seitz is equivalent to compound of instant formula I in the instant claims.*”

For the following reasons, and the reasons already presented in applicants' previous paper,²⁾ applicants respectfully disagree with the Examiner's position that the particular genus of compounds which was delineated by the Examiner is taught or even suggested, i.e. rendered *prima facie* obvious, by the reference.

“*In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.*”³⁾ The motivation to make the proposed substitution, combination, or other modification of the prior art must flow from some teaching in the art that suggests *the desirability or incentive* to make the combination which is needed to arrive at the claimed invention,⁴⁾ the strongest rationale for combining prior art elements in the manner needed being a recognition, expressly or impliedly in the prior art or drawn from a convincing line of

1) Final Office action page 2, lines 12 to 18.

2) Cf. applicants' paper dated April 09, 2007, which is herein incorporated by reference.

3) *In re Lintner*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

4) Cf. *In re Napier*, 55 F.3d, 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995): “Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.”; *In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987); *In re Laskowski*, 871 F.2d 115, 117, 10 USPQ2d 1397, 1399 (Fed. Cir. 1989): “[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification”, quoting *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)

reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination.⁵⁾

The patentability of a claim to a specific compound or subgenus which is embraced by a prior art genus should be analyzed no differently than any other claim for purposes of 35 U.S.C. 103. “The section 103 requirement of unobviousness is no different in chemical cases than with respect to other categories of patentable inventions.”⁶⁾ In particular, the fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a prima facie case of obviousness.⁷⁾ Again, the motivation to make the proposed combination of prior art elements must flow from some teaching in the art that suggests the desirability or incentive to make the combination which is needed to arrive at the claimed invention,⁴⁾ the strongest rationale for doing so being a recognition that some advantage or expected beneficial result would have been produced by their combination.⁵⁾

It is respectfully urged that the teaching of *Seitz et al.*, when taken as a whole, fails to suggest that some advantage or expected beneficial result would be produced when making the particular combination of elements which is necessary to arrive at applicants’ formula (I).

At the least, the teaching of *Seitz et al.* cannot be deemed sufficient for one of ordinary skill in the art having the reference before him to make the combination which is necessary for the grouping $-\text{Ar}^1-\text{G}-\text{Z}$ of the prior art formula to resemble the optionally fused 5- or 6-membered heteroaromatic ring which optionally carries up to three substituents selected from halogen, C_1-C_4 -alkyl, C_1-C_4 -haloalkoxy, C_1-C_4 -haloalkyl and C_1-C_4 -alkoxy which is represented by “Het” in applicants’ formula (I).

A person having ordinary skill in the pertinent art who considered the teaching of *Seitz et al.* as a whole, would have been fully aware of the distinction between (a broad variety of) optional substituents of Ar^1 and the mandatory moiety $-\text{G}-\text{Z}$ which particularly represents radicals in which G is taken by bridging groups such as oxygen and sulfur, or certain optionally substituted dimethylene (ethane-1,2-diyl) and ethene-1,2-diyl groups, or a group such as $-\text{CQ}-\text{Q}-$, $-\text{CH}_2-\text{Q}-$; $-\text{Q}-\text{CH}_2-$, $-\text{CQ}-\text{Q}-\text{CH}_2-$, $-\text{Q}-\text{CQ}-\text{Q}-\text{CH}_2-$, $-\text{N}=\text{N}-$, $-\text{S}(\text{O})_n-\text{CH}_2-$, $-\text{C}(\text{R}^7)=\text{N}-\text{O}-$, $-\text{C}(\text{R}^7)=\text{N}-\text{O}-\text{CH}_2-$, $-\text{N}(\text{R}^8)-\text{CQ}-$, $-\text{Q}-\text{CQ}-\text{N}(\text{R}^8)-$, $-\text{N}=\text{C}(\text{R}^7)-\text{Q}-\text{CH}_2-$, $-\text{CH}_2-\text{O}-\text{N}=\text{C}(\text{R}^7)-$,

5) *In re Sernaker*, 702 F.2d 989, 994-95, 217 USPQ 1, 5-6 (Fed. Cir. 1983).

6) *In re Papesch*, 315 F.2d 381, 385, 137 USPQ 43, 47 (CCPA 1963).

7) *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994) (“The fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious.”). See also *In re Jones*, 958 F.2d 347, 350, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992); *In re Deuel*, 51 F.3d 1552, 1559, 34 USPQ2d 1210, 1215 (Fed. Cir. 1995).

pounds are built up similar to the compounds which are mentioned in the art referenced at the outset of *Seitz et al.*'s teaching. Again, the majority of the abstracts which are set forth on the respective cover pages depict background art compounds which comprise a phenyl ring (*corresponding to Ar¹ of Seitz et al.'s formula (1)*), which carries a certain moiety which corresponds to the group -G-Z of *Seitz et al.*'s formula (1). The respective grouping is generally indicated to be in ortho-position to a radical corresponding to -E- of *Seitz et al.*'s formula. Again, the majority of the references also indicate that the phenyl ring may optionally carry additional, more conventional substituents.

A person having ordinary skill in the art to which the teaching of *Seitz et al.* pertains was, clearly, fully aware of the structural significance of the particular unit which corresponds to the group -G-Z of *Seitz et al.* Such a person was, therefore, directed by the reference to turn to a selection and combination of specifically those radicals mentioned in the definitions of -G- and Z of *Seitz et al.*'s formula which yield the requisite structural particularities, e.g., the combination of a bridging moiety (-G-) with an aromatic ring as the bridgehead (-Z). In light of the significance of the particular structural unit, a person of ordinary skill in the art would not have been motivated to make a selection and combination of radicals which yield in a compound according to *Seitz et al.*'s formula (1) which lacks the structural particularities of the -G-Z ortho-substituent.

The radicals which are allowed as substituents of the group "Het" of applicants' formula (I), namely halogen, C₁-C₄-alkyl, C₁-C₄-haloalkoxy, C₁-C₄-haloalkyl and C₁-C₄-alkoxy, clearly lack the structural particularities of the -G-Z ortho-substituent. As such, the situation here resembles the circumstances which were before the Federal Circuit in the decision in *In re Baird*¹⁰⁾ where a prior art reference disclosed a generic formula encompassing the claimed composition. The Court found that the reference did not provide the requisite motivation to select the claimed composition because the reference (a) disclosed a vast number of possibilities, and (b) gave as "preferred" and "optimum" examples which were different from and more complex than the claimed composition. In fact, the Court noted that the reference appeared to teach away from the selection of the claimed composition by focusing on the more complex examples.

Seitz et al. disclose a vast number of possibilities, in particular regarding the groups represented by -E-, -Ar¹-, -G-, and -Z, which allow for distinctly different structures of the moiety -E-Ar¹-G-Z of *Seitz et al.*'s formula. Additionally, the reference indicates preferred and particularly preferred examples of the moiety -E-Ar¹-G-Z, all of which are different from, and structurally by far more complex than, the radicals which are allowed as substituents of the group "Het"

10) *In re Baird*, 16 F.3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994).

of applicants' formula (I), namely halogen, C₁-C₄-alkyl, C₁-C₄-haloalkoxy, C₁-C₄-haloalkyl and C₁-C₄-alkoxy. The teaching of *Seitz et al.* can, in light of the Court's holding in *In re Baird*, not be deemed to render applicants' compounds (I) prima facie obvious. In fact, under the respective holding of the Court, the teaching of *Seitz et al.* can be deemed to teach away from the selection of substituents such as halogen, C₁-C₄-alkyl, C₁-C₄-haloalkoxy, C₁-C₄-haloalkyl and C₁-C₄-alkoxy by focusing on the more complex examples.

In light of the foregoing, applicants respectfully request that the Examiner withdraw the rejection of Claims 1 to 5, 10 to 14 and 18 to 21 under 35 U.S.C. §103(a) as being unpatentable in light of the teaching of *Seitz et al.*

Moreover, the foregoing shows that the subject matter which is defined in applicants' claims is patentable under the pertinent provisions of the Patent Act. The application is therefore deemed to be in good condition for allowance. Favorable action by the Examiner is respectfully solicited.

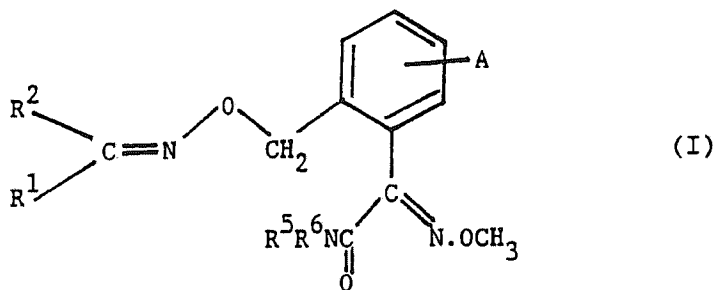
However, in the event that the Examiner is of the opinion that further explanations or clarifications are necessary or desirable to expedite the proceedings in this matter, applicants would greatly appreciate it if the Examiner would grant their representative the opportunity address such matters in a personal interview.



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

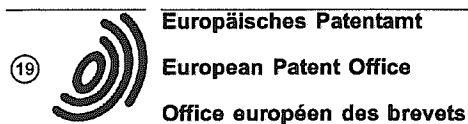
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(21) International Application Number: PCT/GB92/00067		(74) Agent: HOUGHTON, Malcolm, John; Imperial Chemical Industries plc, Group Patents Services Department, P.O. Box 6, Bessemer Road, Welwyn Garden City, Herts AL7 1HD (GB).	
(22) International Filing Date: 13 January 1992 (13.01.92)			
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(54) Title: FUNGICIDES



(57) Abstract

Fungicidal compounds having formula (I) and stereoisomers thereof, wherein A is hydrogen, halo, hydroxy, C₁₋₄ alkyl, C₁₋₄ alkoxy, C₁₋₄ haloalkyl, C₁₋₄ haloalkoxy, C₁₋₄ alkylcarbonyl, C₁₋₄ alkoxy carbonyl, phenoxy, nitro or cyano; R¹ and R², which may be the same or different, are hydrogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted heterocyclylalkyl, optionally substituted cycloalkylalkyl, optionally substituted aralkyl, optionally substituted aryloxyalkyl, optionally substituted heterocyclyloxyalkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted alkoxy, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted aryloxy, optionally substituted heterocyclyloxy, nitro, halo, cyano, -NR³R⁴, -CO₂R³, -CONR³R⁴, -COR³, -S(O)_nR³ wherein n is 0, 1 or 2, (CH₂)_mPO(OR³)₂ wherein m is 0 or 1, or R¹ and R² join to form a carbocyclic or heterocyclic ring system; R³ and R⁴, which are the same or different, are hydrogen, optionally substituted alkyl, optionally substituted aralkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl or optionally substituted heteroaryl, or R³ and R⁴ join to form an optionally substituted heterocyclic ring; and R⁵ and R⁶ are independently hydrogen or C₁₋₄ alkyl.



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(12) **EUROPEAN PATENT APPLICATION**

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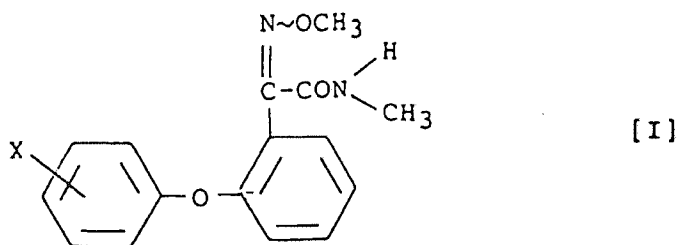
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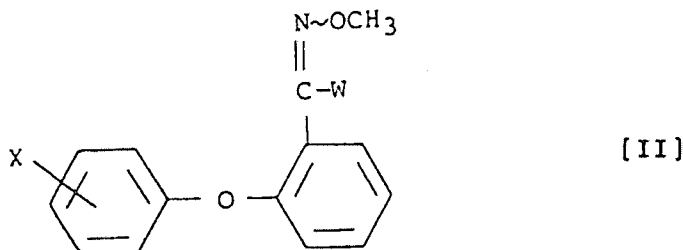
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(54) **Process for producing methoxyiminoacetamide compounds and intermediates.**

(57) A compound of the formula [I] :

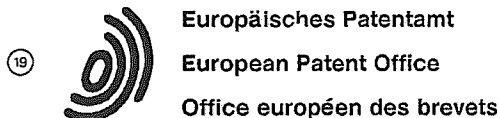


wherein X is hydrogen, lower alkyl, lower alkoxy or halogen; ~ is any configuration of E-isomer, Z-isomer or a mixture thereof is produced by reacting a compound of the formula [II]



wherein X and ~ are as defined above; W is -CN or -COOR; and R is a lower alkyl, with methylamine in the presence of methanol. The compound [I] is useful for an agricultural fungicide. An intermediate used for producing the compound [I] is also disclosed.

Cited in WO 96/17825
p 1 P 2



11 Publication number:

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12

EUROPEAN PATENT APPLICATION

21 Application number: 90305303.1

22 Date of filing: 16.05.90

51 Int. Cl.⁵: **C07C 251/40, A01N 37/50,**
C07C 323/57, C07C 317/44,
C07D 239/34, C07C 323/63,
C07F 7/10, C07D 213/643,
C07D 213/64, C07D 309/12,
C07D 277/68

30 Priority: 17.05.89 JP 124059/89
29.12.89 JP 341175/89

43 Date of publication of application:
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64 Designated Contracting States:
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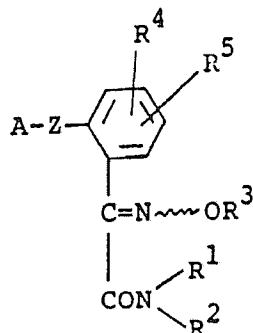
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54 Alkoxyiminoacetamide derivatives and their use as fungicides.

57 A fungicidal composition for agricultural use, which comprises a compound of the formula:



(I)

EP 0 398 692 A2

Cited in WO 96/17825
p 24 A 5

①9 BUNDESREPUBLIK
DEUTSCHLAND



DEUTSCHES
PATENTAMT

⑫ Offenlegungsschrift
⑩ DE 39 38 054 A 1

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㉑ Anmeldetag: 16. 11. 89
㉒ Offenlegungstag: 23. 5. 91

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C 07 D 247/00
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C 07 D 257/04
C 07 D 277/00
C 07 D 285/02
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A 01 N 43/40
A 01 N 43/54

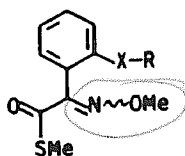
DE 39 38 054 A 1

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⑤4 Thiolcarbonsäureester

Thiolcarbonsäureester der allgemeinen Formel I,



I

(X Sauerstoff, Schwefel, Oxymethylen, Methylenoxy, Thio-
methylen, Methylenthio, Ethylen, Ethenylen oder Ethinylen,
R C₁-C₆-Alkyl, ein-, zwei- oder dreikerniges Aryl oder
Heteroaryl, wobei Aryl und Heteroaryl folgende Reste R¹
tragen können:

R¹ Halogen, Cyano, Nitro, C₁-C₆-Alkyl, C₃-C₆-Cycloalkyl,
C₁-C₆-Alkoxy, Trifluormethyl, ein- oder zweikerniges Aryloxy
oder ein-, zwei- oder dreikerniges Aryl, wobei Aryloxy und
Aryl ihrerseits durch die genannten Reste R¹ substituiert sein
können.)

ihre Herstellung und die Thiolcarbonsäureester enthaltende
fungizide Mittel sowie ein entsprechendes Verfahren zur
Bekämpfung von Schadpilzen.

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p 24 ff 5



Europäisches Patentamt
European Patent Office
Office européen des brevets



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(12)

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A01N 37/44**

(22) Anmeldetag: **14.11.90**

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13.09.90 DE 4029092**

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19.06.91 Patentblatt 91/25

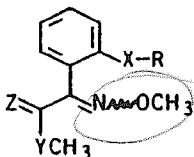
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(54) **Thiolcarbonsäureester und diese enthaltende Fungizide.**

(57) Thiolcarbonsäureester der allgemeinen Formel I,



I

in der

X Sauerstoff, Schwefel, Oxymethylen, Methylenoxy, Thiomethylen, Methylenthio, Ethylen, Ethenylen oder Ethinylen,

Z, Y Schwefel oder Sauerstoff, wobei Z und Y nicht beide gleichzeitig Sauerstoff bedeuten,

R Alkyl, ein-, zwei- oder dreikerniges Aryl oder Heteroaryl, wobei Aryl und Heteroaryl substituiert sein können,

und diese Verbindungen enthaltende fungizide Mittel.

EP 0 432 503 A1



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EUROPÄISCHE PATENTANMELDUNG

Anmeldenummer: **91121148.0**

Int. Cl.⁵: **C07C 251/48**, C07C 59/68,
C07C 255/40, C07C 65/21,
C07C 235/34

Anmeldetag: **10.12.91**

Priorität: **31.12.90 DE 4042273**
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31.12.90 DE 4042272

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08.07.92 Patentblatt 92/28

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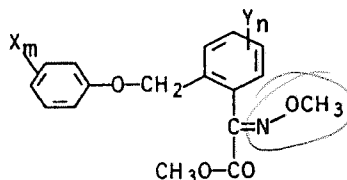
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Verfahren zur Herstellung von E-Oximethern von Phenylglyoxylsäureestern.

Verfahren zur Herstellung von E-Oximethern von Phenylglyoxylsäureestern der allgemeinen Formel I



wobei die Variablen die folgende Bedeutung haben:

X,Y Substituenten, ausgewählt aus einer Gruppe bestehend aus Halogen, C₁-C₄-Alkyl, C₁-C₄-Alkoxy oder Trifluormethyl;

m eine ganze Zahl von 0 bis 4;

n eine ganze Zahl von 0 bis 3,

und wobei man

a) ein Phenol der allgemeinen Formel II

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Publication number:

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A2**

EUROPEAN PATENT APPLICATION

Application number: 90300779.7

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Priority: 10.02.89 GB 8903019

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Designated Contracting States:
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

Applicant: **IMPERIAL CHEMICAL INDUSTRIES
PLC**
Imperial Chemical House, Millbank
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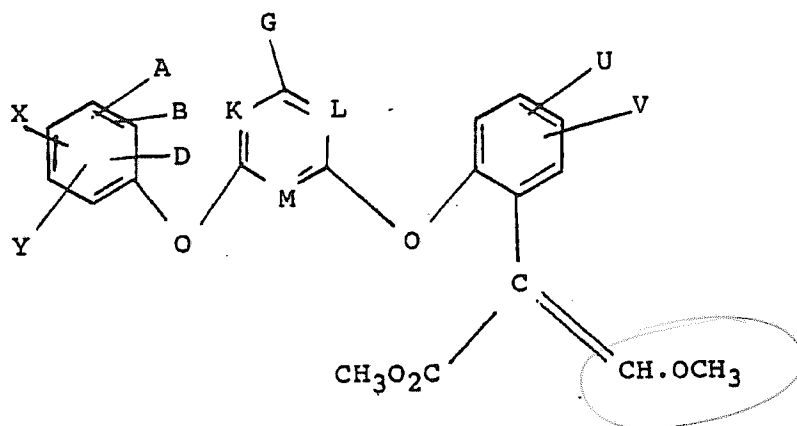
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Representative: **Houghton, Malcolm John et al**
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Fungicides.

Compounds having the formula (I):



in which any two of K, L and M are nitrogen and the other is CE; X and Y are independently hydrogen, halogen, C₁₋₄ alkyl, C₃₋₆ cycloalkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl, C₂₋₄ alkynyloxy, phenyl, benzyloxy, cyano, isocyano, isothiocyanato, nitro, NR¹R², NR¹OR², N₃, NHCOR¹, NR¹CO₂R², NHCONR¹R², N=CHNR¹R², NHSO₂R¹, OR¹, OCOR¹, OSO₂R¹, SR¹, SOR¹, SO₂R¹, SO₂OR¹, SO₂NR¹R², COR¹, CR¹=NOR², CHR¹CO₂R², CO₂R¹, CONR¹R², CSNR¹R², CN₃O₂C.C:CH.OCH₃, 1-(imidazol-1-yl)vinyl, a 5-membered heterocyclic ring containing one, two or three nitrogen heteroatoms, or a 5- or 6-membered

EP 0 382 375 A2

12

EUROPEAN PATENT APPLICATION

21 Application number: 87302795.7

22 Date of filing: 31.03.87

51 Int. Cl.: **C 07 D 213/64**, C 07 D 213/65,
C 07 D 213/85, C 07 D 213/74,
C 07 D 213/75, C 07 D 215/22,
C 07 D 213/80, C 07 D 213/79,
C 07 D 213/70, C 07 D 213/71,
C 07 D 239/34

30 Priority: 17.04.86 GB 8609454
23.12.86 GB 8630825

43 Date of publication of application: 21.10.87
Bulletin 87/43

84 Designated Contracting States: AT BE CH DE ES FR GB
GR IT LI LU NL SE

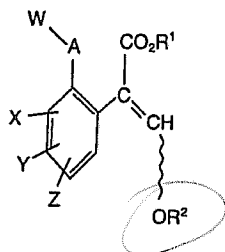
71 Applicant: **IMPERIAL CHEMICAL INDUSTRIES PLC**,
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74 Representative: **Houghton, Malcolm John et al**, Imperial
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54 **Fungicides.**

57 Compounds of formula:



and stereoisomers thereof, wherein the substituents have the meaning given in claim 1; and metal complexes thereof. The compounds are useful mainly as fungicides but also as plant growth regulators and insecticides/nematocides.

EP 0 242 081 A1

⑫ **EUROPEAN PATENT APPLICATION**

⑲ Application number: 85307108.2

⑳ Date of filing: 03.10.85

⑤① Int. Cl.⁴: **C 07 C 69/734**
C 07 C 103/46, A 01 N 37/10
A 01 N 37/18, C 07 C 67/343
C 07 C 69/738, C 07 D 307/54
C 07 C 79/46, C 07 C 87/50
C 07 C 107/06

A request for correction under R. 88 has been received on 140285.

③① Priority: 19.10.84 GB 8426473
20.12.84 GB 8432265
23.05.85 GB 8513115
23.05.85 GB 8513104

④③ Date of publication of application:
23.04.86 Bulletin 86/17

⑥④ Designated Contracting States:
AT BE CH DE FR GB IT LI LU NL SE

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⑦② Inventor: **Defraigne, Paul**
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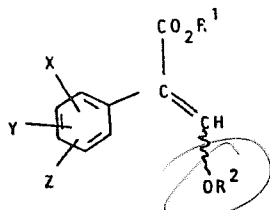
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⑥④ Fungicides.

⑥⑦ Compounds of formula:



and stereoisomers thereof, wherein X, Y and Z, which may be the same or different, are hydrogen or halogen atoms, or optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl, optionally substituted alkynyl, haloalkyl, alkoxy, haloalkoxy, optionally substituted aryloxy, optionally substituted arylalkoxy, optionally substituted acy-

loxy, optionally substituted amino, optionally substituted arylazo, acylamino, nitro, nitrile, $-\text{CO}_2\text{R}^3$, $-\text{CONR}^4\text{R}^5$, $-\text{COR}^6$, $-\text{CR}^7=\text{NR}^8$, or $-\text{N}=\text{CR}^9\text{R}^{10}$ groups; or the groups X and Y, when they are in adjacent positions on the phenyl ring, may join to form a fused ring, either aromatic or aliphatic, optionally containing one or more heteroatoms; and R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 and R^{10} , which may be the same or different, are hydrogen atoms or alkyl, cycloalkyl, alkenyl, alkynyl, optionally substituted aryl, optionally substituted aralkyl, or cycloalkylalkyl groups; and metal complexes thereof.